Euphonix System 5

System 5 Post and Film Setup Guide

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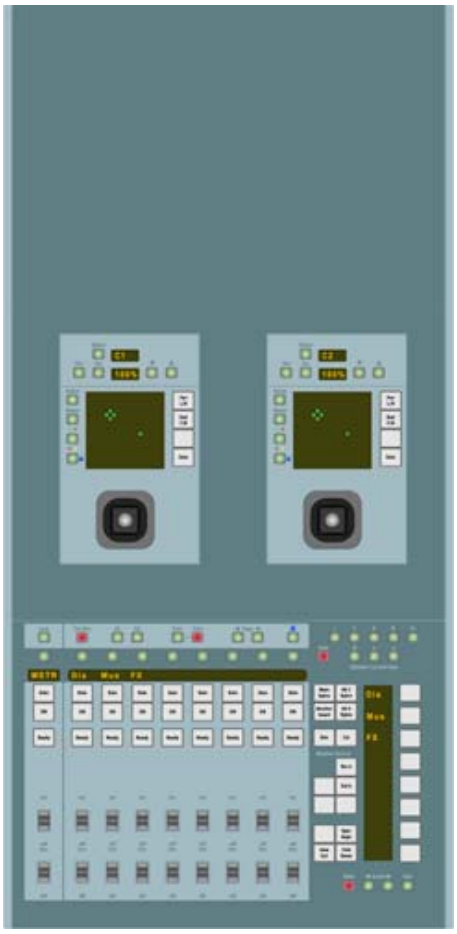

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CM403 Installation

CM403 Module

The CM403 uses the same form factor and architecture as a standard control module (CM401, 402, 408). A single Ethernet port connects the module to the system via the 100 BaseT EuCon switch. The CM403 houses a TFT and fits three panels of the same size: Film Post and the Dual-Joystick Panels. The Film Post panel can be placed above or below the Joystick Panel depending on the preference of the operator. The user has the option of placing their own motion controller, such as a JSK Engineering Inc. P2 Control Head or Soundmaster ION™, into the spare panel.

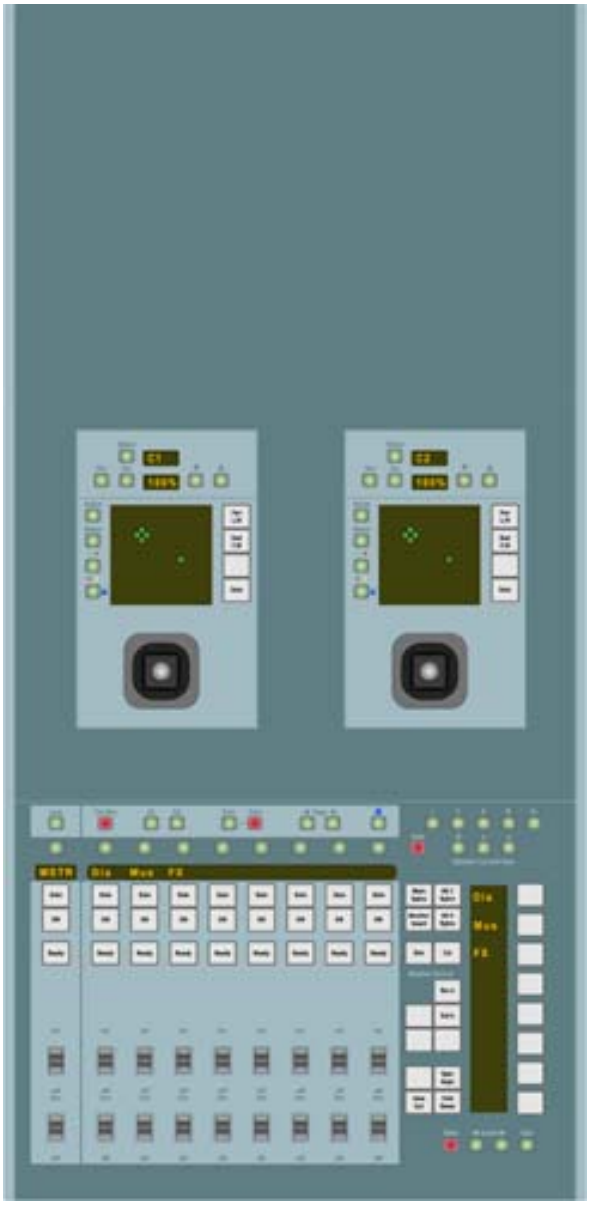


Figure 1 CM403 Module with Film Post Panel and Joysticks

ID selection

Up to four CM403 modules can be installed in a System 5 console. Set the ID switches on the back panel of the module according to Table 1:

Table 1 CM403 ID Switch Settings

CM403 #	Frame ID	Module ID	Position # in eMix
1	1H	13	1–29
2	1H	14	1–30
3	1H	15	1–31
4	1H	16	1–32

NOTE: *In a dual-operator console,* ***all*** *CM403 modules are connected to the* ***master*** *console, which is used for monitoring and record control.*

External Record Control

The **Euphonix EXT** 25-pin connector on the rear panel of the CM403 accepts two external closures:

Table 2

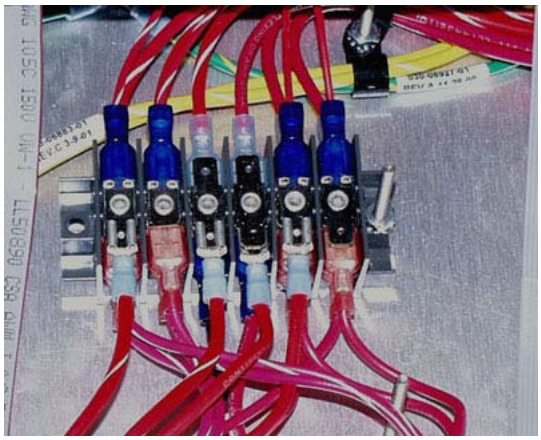
Function	Switch Input	+5 V
Record In	Pin 25	Pin 13
Record Out	Pin 11	Pin 13

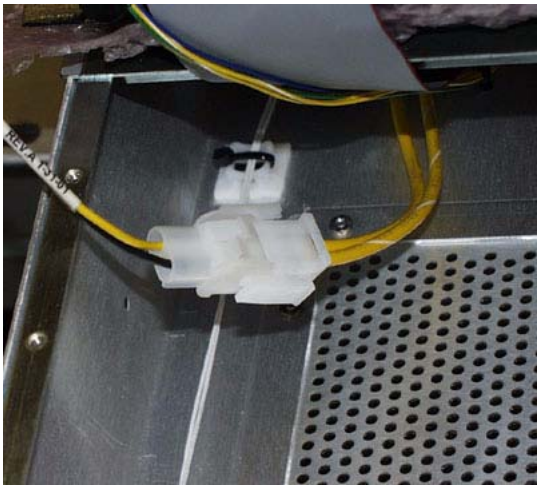
The +5V output on the connector is internally protected by a 200 mA self-resetting fuse. The active-high switch inputs are TTL-level inputs with 100 K pull-down resistors.

Film Panel Installation

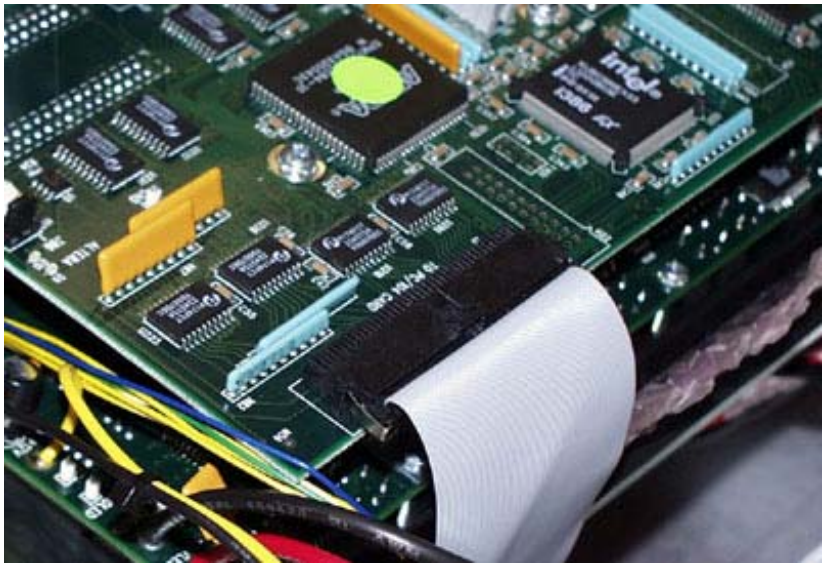
NOTE: *Each instruction pertains to the picture beneath its text.*

Connect the 5-V power cables (red) from the Film Panel to the header block on the bottom of the module. Be sure to maintain correct polarity (red/white stripe is negative). Connect the 12-V power connection to the mating connector coming from the PSU.

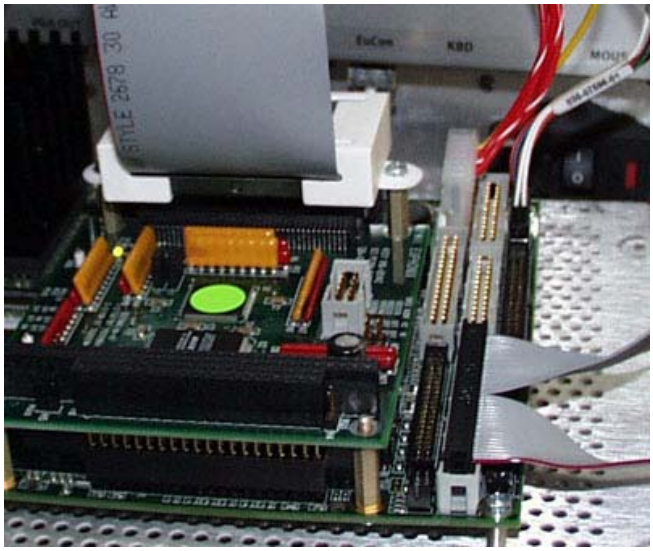




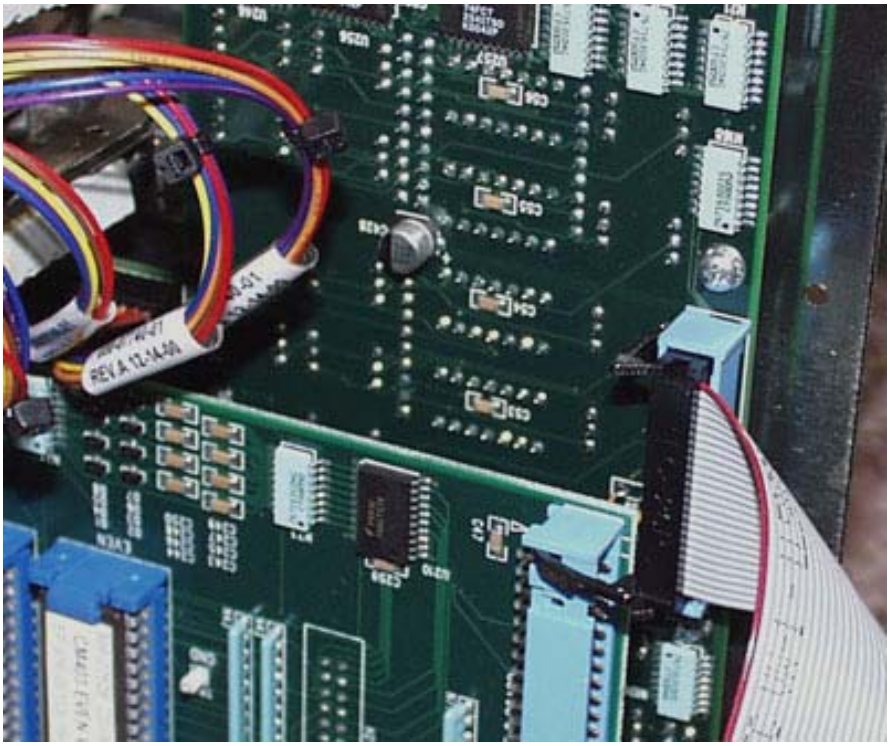
Connect the PC104 cable to H26 on the Film Panels 386 board.



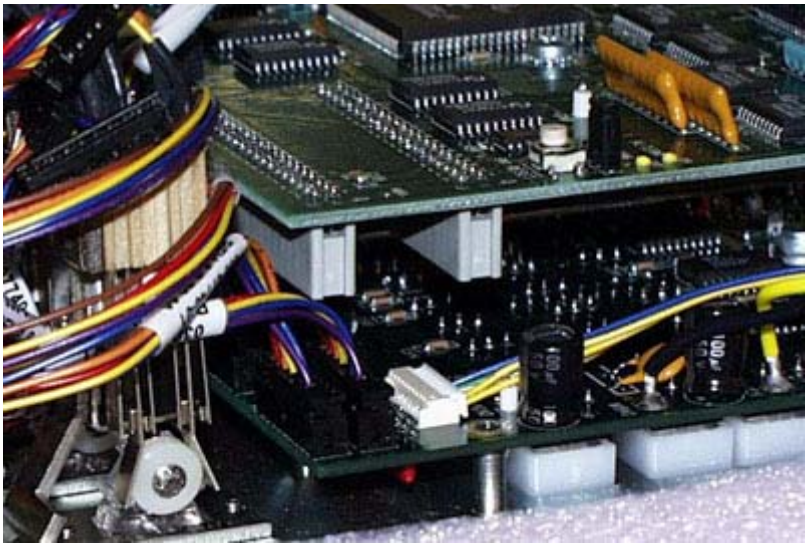
Connect the opposite end of the PC104 cable to the PC104 card on the SBC (Single Board Computer) mounted on the rear ventilation panel of the module. Secure the RF choke as shown above.



Connect the Euphonix Ext cable (25-pin D-sub on the rear panel) to H103 on the upper board of the Film Panel.

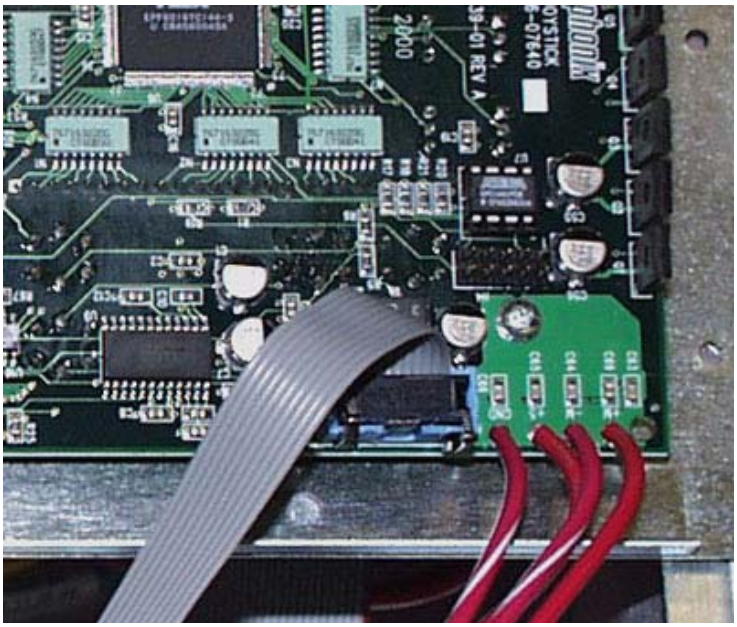


Connect the TFT backlight cable to the connector on the upper board of the film panel.

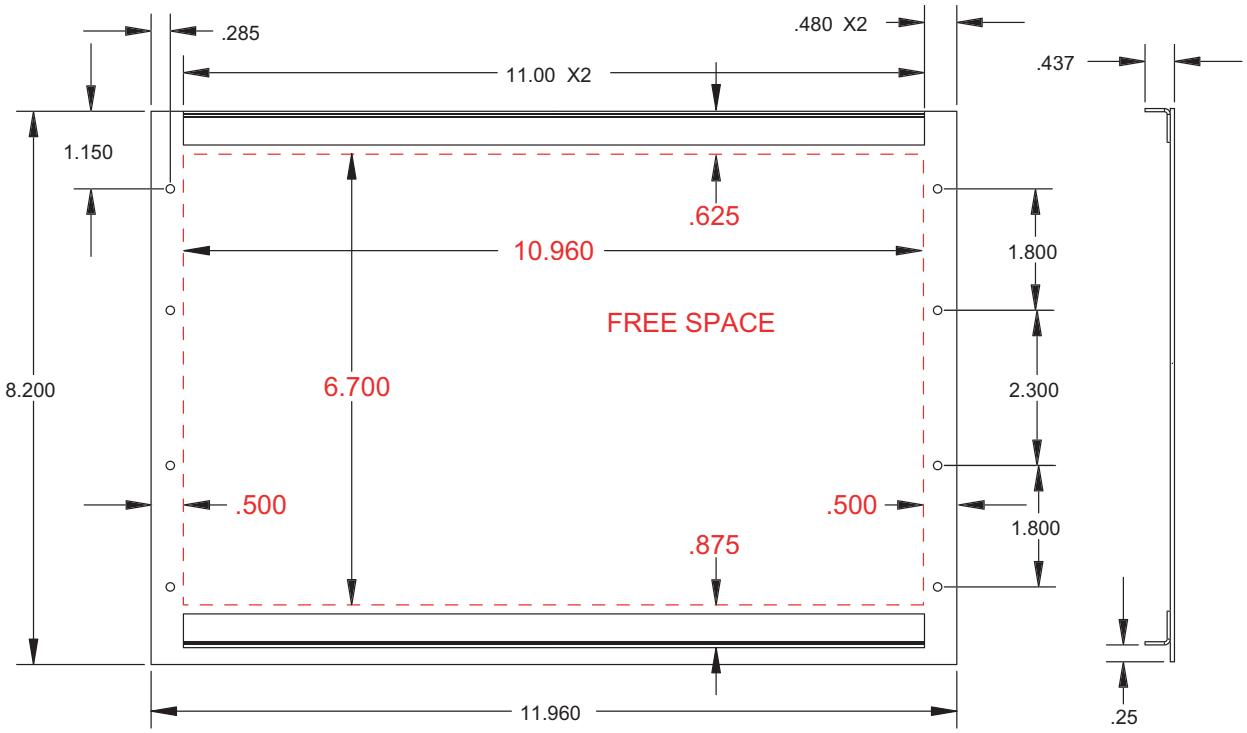


Joystick Panel Installation

Connect the 5-V power cables (red) from the Joystick to the header block on the bottom of the module. Be sure to maintain correct polarity (red/white stripe is negative). See the photo in Film Panel Installation. Connect the serial cables from the 9-pin connectors on the rear panel of the CM403 to the headers on the joystick PCBs. Attach two serial cables between the external CM403 9-pin joystick ports and the adjacent CM408 9-pin serial ports.



Blank Panel


.285
11.00 X2
.480 X2
.437
1.150
.625
10.960
FREE SPACE
1.800
8.200
6.700
2.300
.500
.500
1.800
.875
11.960
.25

Record Control Setup

Version 2.5 of eMix added record and track-arming functionality to the System 5 console. Version 3.0x (or higher) of the TT007 software is required.

One record machine with up to 48 tracks is supported; additional record machines can be supported using third-party hardware. Contact Euphonix customer support for more information.

Perform the following steps to enable record- and track-arming:

1. From the Main Panel on the CM401, select **Machines**.
2. Select **Setup** and set the options on this panel to reflect your preferred method of operation.

NOTE: *Only the master console should be set to "Disarm on Stop" if this option is desired. Setting both consoles to do this will cause problems with tally information.*

---

3. On the TT007, display the **Utility** menu.
4. Set **REC Safe** to ***Off***.
5. The TT007 normally sends record commands to the Master machine. To record- or track-arm a Slave machine, set **Re-Direct** to the port of the machine you wish to control.
6. Enter **Port Mode** by pressing the port's button twice.
7. Set **Record** to ***Edit*** and **Track Arm** to ***On***.

Solo Linking

NOTE: *Problems may occur if the **Solo Linking** service is running when eMix is installed. To avoid this, open the MOConfig.exe application and click **Stop** to stop the service before installing newer software.*

Physical Connection Between Systems

In a two-operator system, a single Cat5 cross-over cable connects the two system PCs using the spare network adaptor ports.

In a three-operator system, the three System PCs are connected via a central ethernet switch.

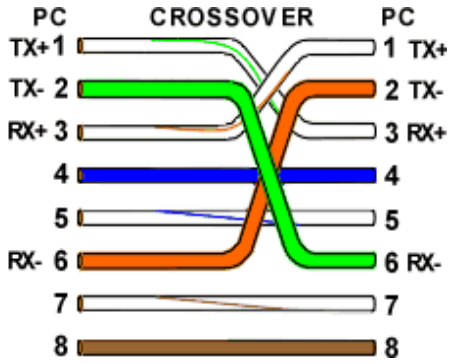


Figure 2 Crossover Network Cable

NOTE: *The Solo Linking service requires the Windows user account to have a non-blank password. Before continuing to Network Settings, make sure your Windows account has a non-blank password: Open the Windows Control Panel (**Start->Settings->Control Panel**), double-click on the **User Accounts** applet, and click the **Reset Password** button at the bottom-right of the dialog (make sure your user account is highlighted in that window). Enter a password and press **OK** to close the dialog.*

Network Settings

The settings for the network identification and addressing are found in the Network Connections window. Open the Network Connections window by choosing **Settings->Network Connections** from the **Start** menu.

Change the Computer Name

In the Network Connections window, select **Network Identification** from the **Advanced** menu.

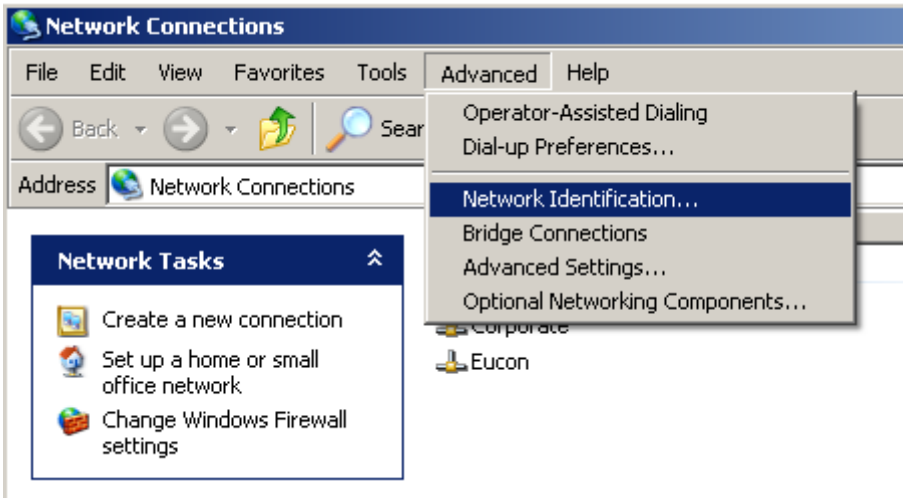


Figure 3 Network Connections Window with Advanced Menu

The System Properties dialog opens with the Computer Name tab selected.

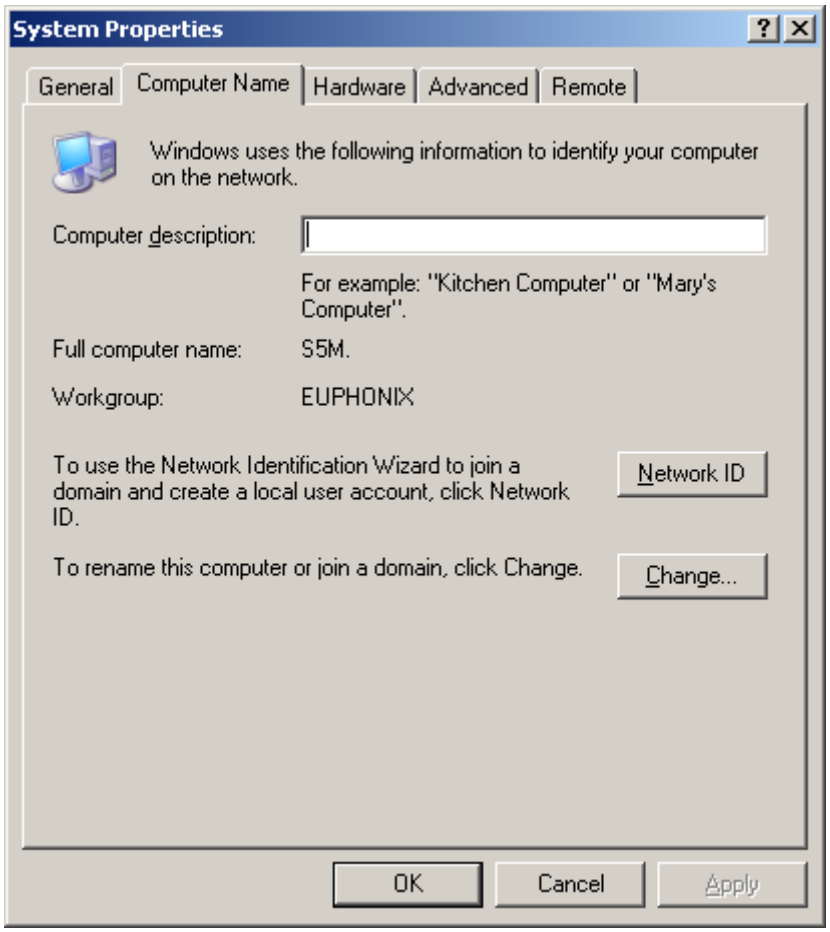


Figure 4 Computer Name tab

1. Click the **Change** button at the bottom-right.

   A dialog appears requesting the new name.

2. Type one the following names depending on the console being changed:

   Master - S5M

   Slave1 - S5S1

   Slave2 - S5S2

3. Do not change the domain and workgroup settings; consult your network administrator for the proper settings for your network.

4. Click **OK** on the renaming dialog.

   A dialog appears warning that a restart is needed.

5. Click **OK**.

6. Click **OK** to close the System Properties dialog.

   A dialog asks if you would like to restart the computer.

7. Click **No** and do not restart the computer yet.

Assign IP Address to Second Network Interface Card

Two network connections are displayed in the Network Connections window. One is for your console's modules and pilots (typically named EuCon) the other for the connection to your outside LAN.

1. Right-click on the LAN connection (NOT the EuCon connection) and choose **Properties**.

   The Studio LAN Properties dialog opens.

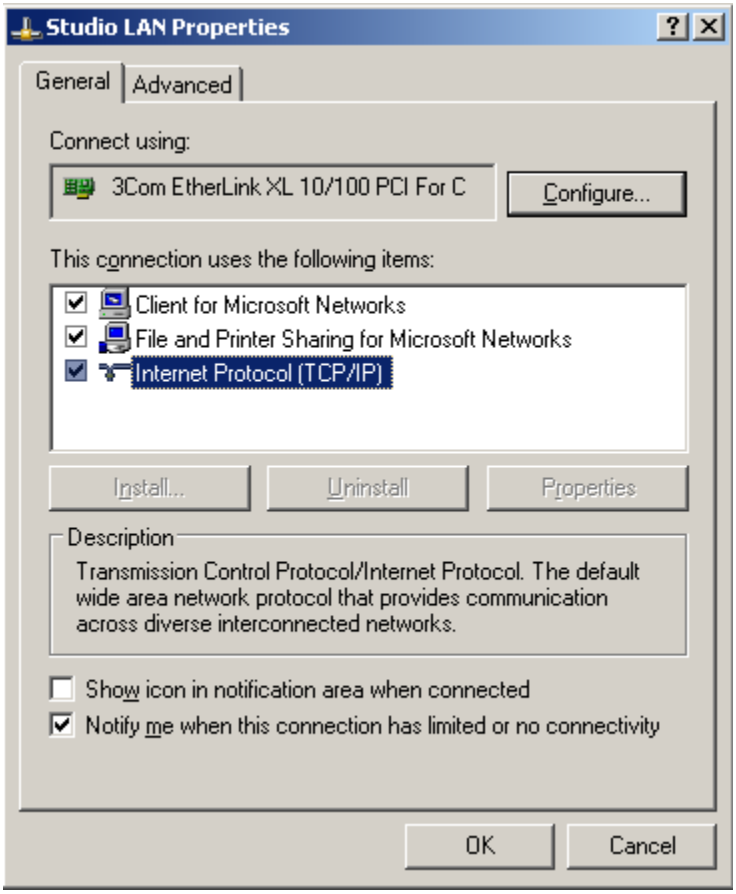


Figure 5 Studio LAN Properties dialog

2. Double-click Internet Protocol (TCP/IP) in the properties dialog.

   The TCP/IP Properties dialog opens.

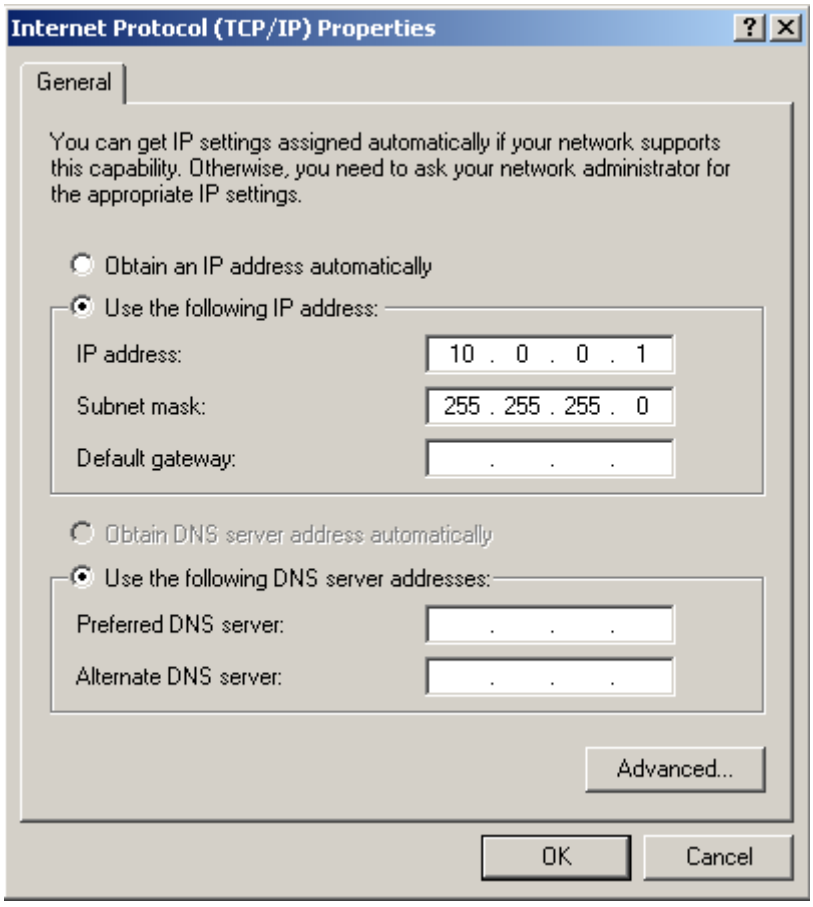

Internet Protocol (TCP/IP) Properties
General
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
Obtain an IP address automatically
Use the following IP address:
IP address:
10 . 0 . 0 . 1
Subnet mask:
255 . 255 . 255 . 0
Default gateway:
Obtain DNS server address automatically
Use the following DNS server addresses:
Preferred DNS server:
Alternate DNS server:
Advanced...
OK
Cancel

Figure 6 Internet Protocol (TCP/IP) Properties dialog

3. Click the **Use The Following IP Address** radio button and enter the IP address according to the following:

   Master - 10.0.0.1

   Slave1 - 10.0.0.2

   Slave2 - 10.0.0.3

   The subnet mask is 255.255.255.0 for all three systems.

   Leave the Default Gateway and DNS Server fields blank.

4. Click **OK** to close the Internet Protocol Properties.

5. Click on the Advanced tab at the top of the connection properties dialog.

   Make sure **Allow other network users to connect through this computer's internet connection** is checked in the Internet Connection Sharing section.

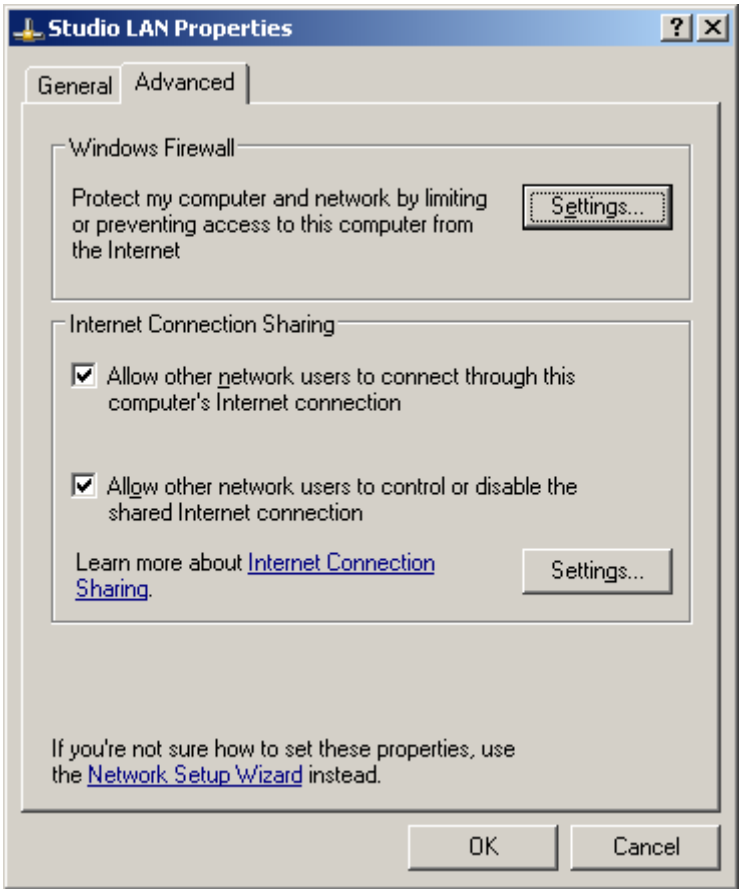

Studio LAN Properties
General
Advanced
Windows Firewall
Protect my computer and network by limiting or preventing access to this computer from the Internet
Settings...
Internet Connection Sharing
Allow other network users to connect through this computer's Internet connection
Allow other network users to control or disable the shared Internet connection
Learn more about Internet Connection Sharing.
Settings...
If you're not sure how to set these properties, use the Network Setup Wizard instead.
OK
Cancel

Figure 7 Advanced tab of Studio LAN Properties dialog

6. Press **OK** to close the connection properties dialog.

Configure DCOM Using Component Services Editor

1. After restarting the computer, open the Component Services Editor.
2. Click **Start** and select **Run**.

   The Run dialog appears.
3. Type *dcomcnfg* and press **Enter**.

   The Component Services Editor appears.

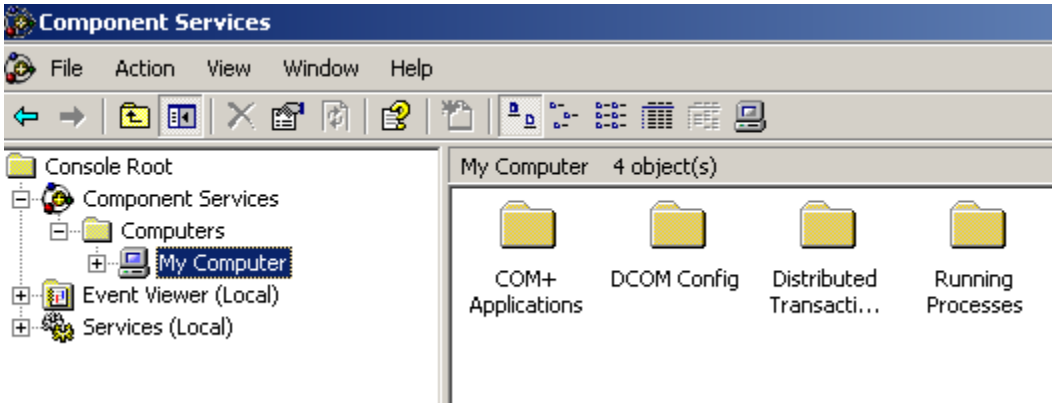


Figure 8 Component Services Editor

4. Expand **Component Services** in the left pane (Figure 8).
5. Right-click on **My Computer** and choose **Properties**.

   The My Computer Properties dialog opens.
6. Click the Default Properties tab.

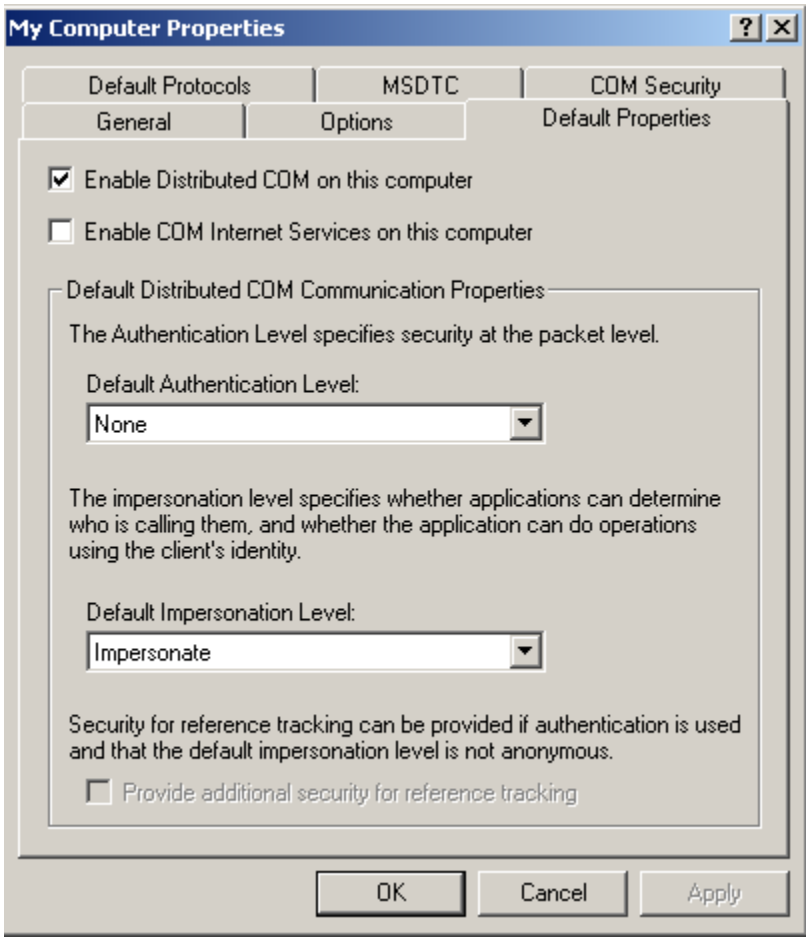

My Computer Properties
Default Protocols
MSDTC
COM Security
General
Options
Default Properties
Enable Distributed COM on this computer
Enable COM Internet Services on this computer
Default Distributed COM Communication Properties
The Authentication Level specifies security at the packet level.
Default Authentication Level:
None
The impersonation level specifies whether applications can determine who is calling them, and whether the application can do operations using the client's identity.
Default Impersonation Level:
Impersonate
Security for reference tracking can be provided if authentication is used and that the default impersonation level is not anonymous.
Provide additional security for reference tracking
OK
Cancel
Apply

Figure 9 My Computer Properties-Default Properties tab

7. Make sure **Enable Distributed COM** on this computer is checked, **Default Authentication Level** is set to *None*, and **Default Impersonation Level** is set to *Impersonate*.
8. Then click **Apply**. (Do not click **OK** or you will close the System Properties dialog).
9. Now click the COM Security tab.

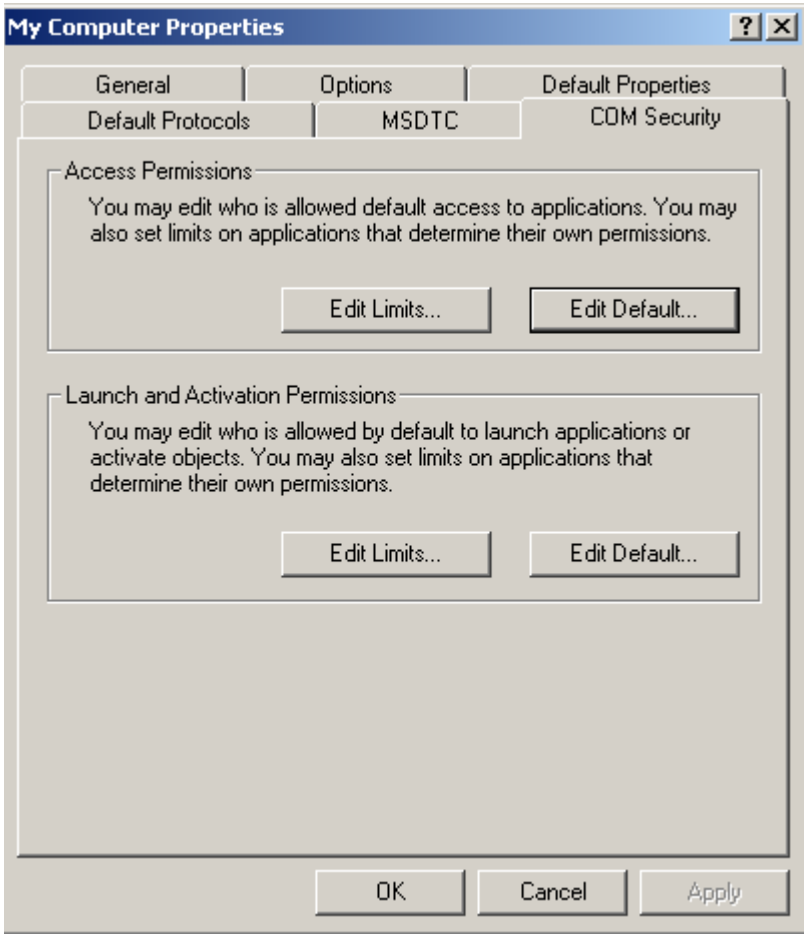

My Computer Properties
General
Options
Default Properties
Default Protocols
MSDTC
COM Security
Access Permissions
You may edit who is allowed default access to applications. You may also set limits on applications that determine their own permissions.
Edit Limits...
Edit Default...
Launch and Activation Permissions
You may edit who is allowed by default to launch applications or activate objects. You may also set limits on applications that determine their own permissions.
Edit Limits...
Edit Default...
OK
Cancel
Apply

Figure 10 My Computer Properties-COM Security tab

The tab has **Edit Limits** and **Edit Defaults** buttons for Access Permissions and Launch & Activation Permissions. Each button opens a permissions setting dialog.

10. Click the **Edit Limits** and **Edit Permissions** buttons in turn. In each permissions dialog, select each user shown and click **Allow** for each permission.

You must add the following users or groups if they are not there:
Everyone, **Interactive**, **Network**, and **System**.

This must be done for every user listed in each of the four permissions dialogs. An example of the Limits permissions for Launch & Activation is shown below.

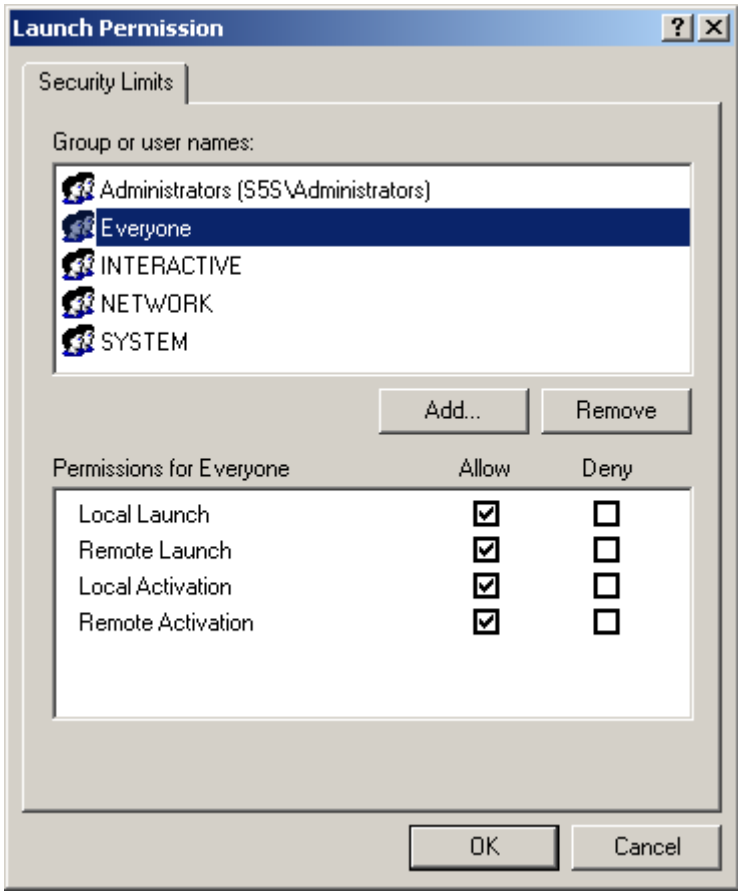


Figure 11 Launch Permissions dialog example

11. When finished, click **Apply** in the My Computer Properties dialog and the OK to close it.
12. Back in the Component Services Editor window, expand **My Computer**, then expand **DCOM Config** as shown below.

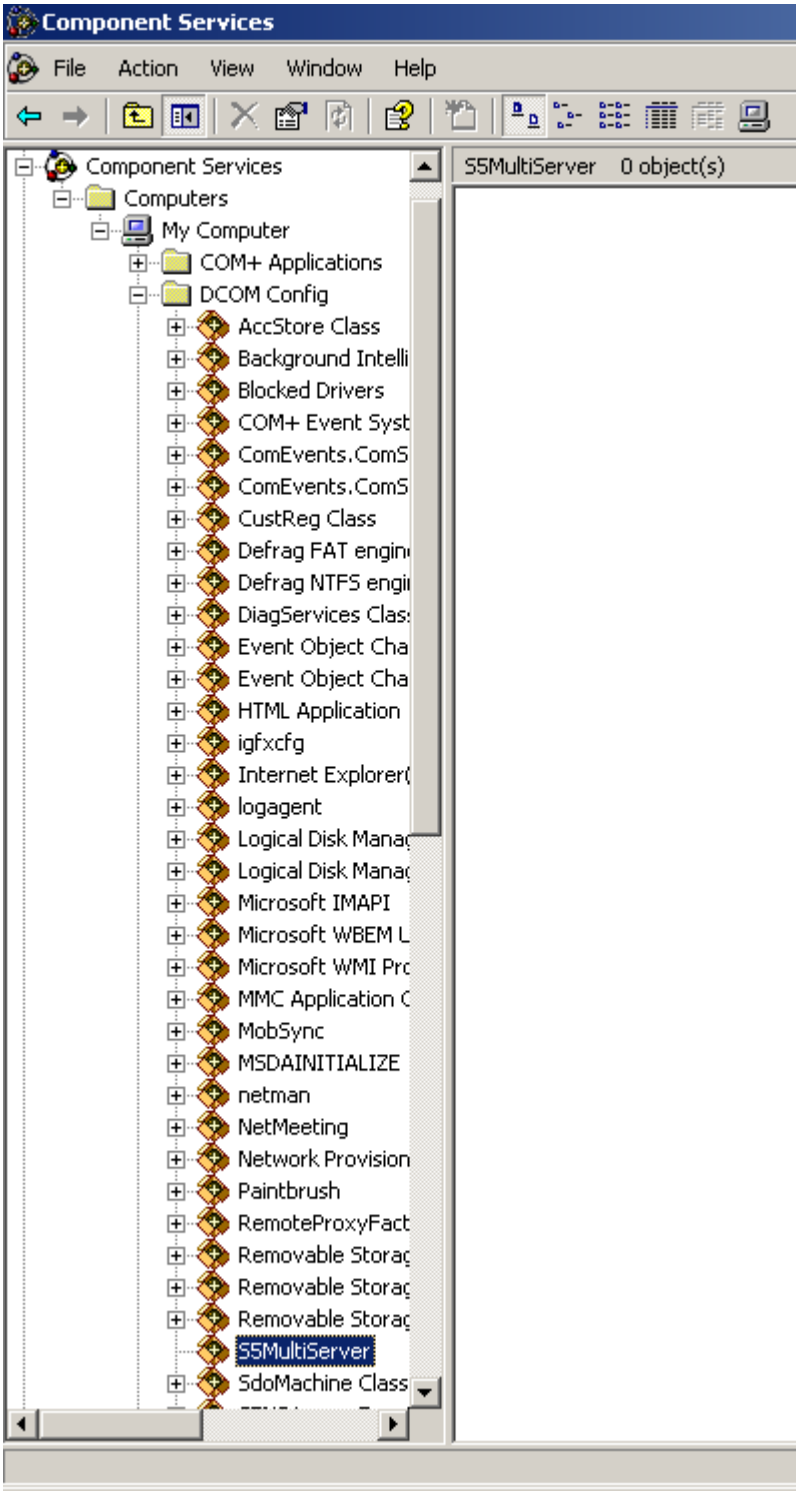


Figure 12 Component Services-S5MultiServer

13. Right-click on **S5MultiServer**, then choose **Properties**.

    The S5MultiServer Properties dialog opens.

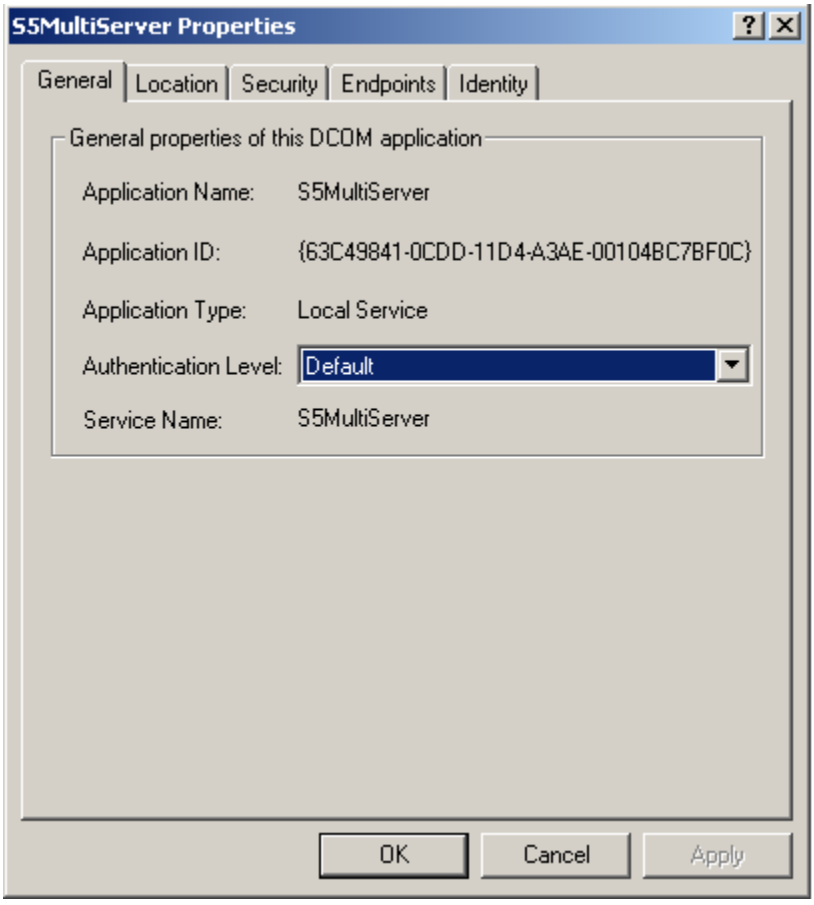


Figure 13 S5MultiServer Properties-General tab

14. In the General tab, make sure that **Authentication Level** is set to *Default*.
15. Click **Apply**.

    Do NOT click **OK** or you will close the dialog.

16. Click the **Location** tab.

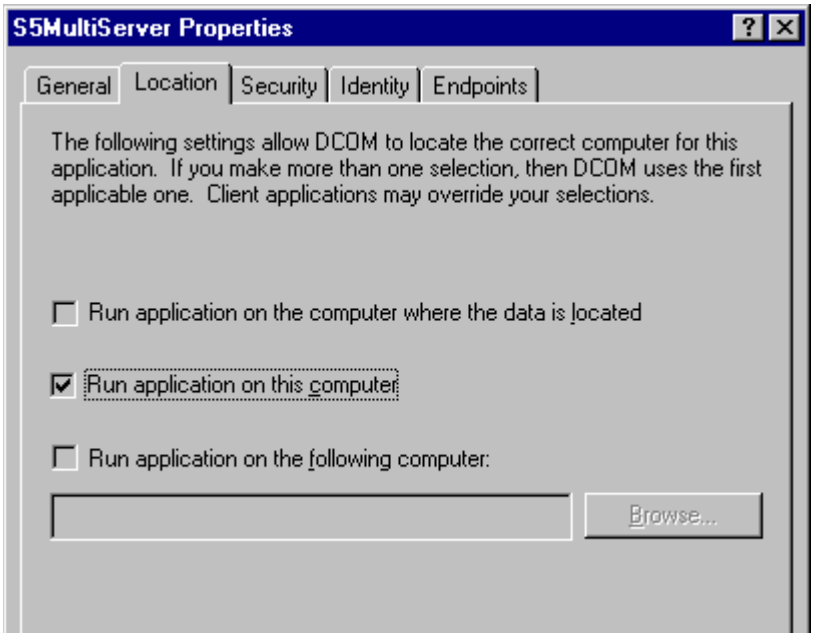

S5MultiServer Properties
General
Location
Security
Identity
Endpoints
The following settings allow DCOM to locate the correct computer for this application. If you make more than one selection, then DCOM uses the first applicable one. Client applications may override your selections.
Run application on the computer where the data is located
Run application on this computer
Run application on the following computer:
Browse...

Figure 14 Location Dialog - Run on this computer.

17. On the Master console (S5M -10.0.0.1), select **Run application on this computer**.

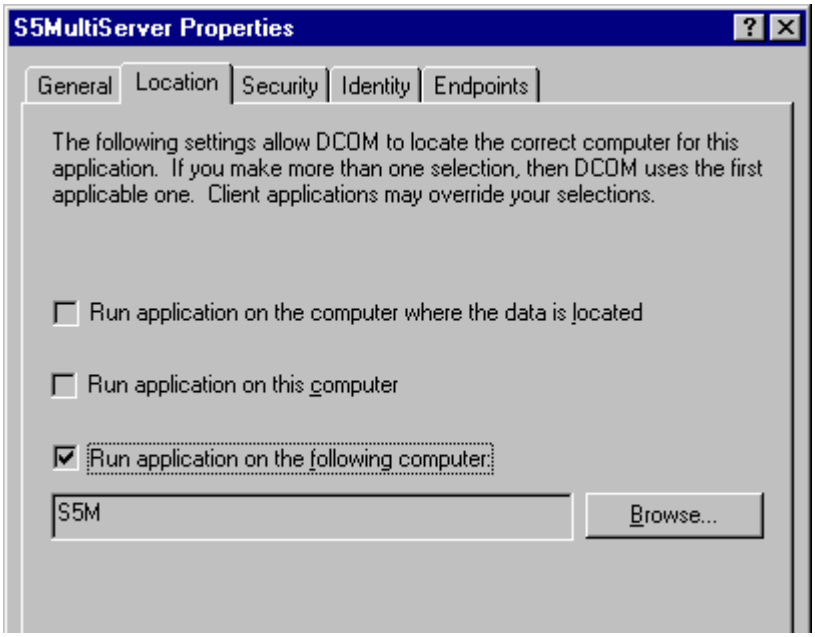

S5MultiServer Properties
General
Location
Security
Identity
Endpoints
The following settings allow DCOM to locate the correct computer for this application. If you make more than one selection, then DCOM uses the first applicable one. Client applications may override your selections.
Run application on the computer where the data is located
Run application on this computer
Run application on the following computer:
S5M
Browse...

Figure 15 Location Dialog - Run on another computer.

18. On all Slave consoles perform the following procedure:

a. Select **Run application on the following computer**.

b. Click the **Browse** button.

The Select Computer dialog opens.

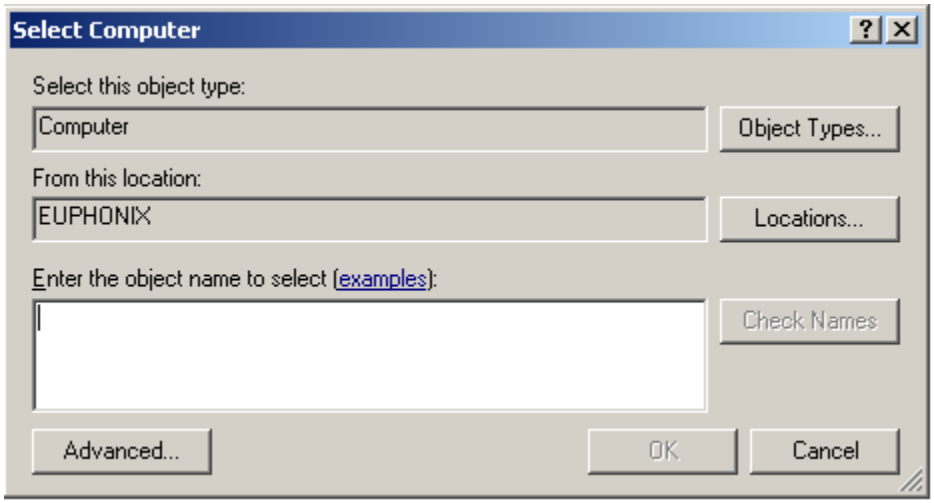


Figure 16 Select Computer dialog

c. Click the **Advanced** button (bottom left).

The Select Computer dialog expands to the advanced search mode.

d. Click **Find Now** at the mid-right of the dialog.

All the computers available on the network appear.

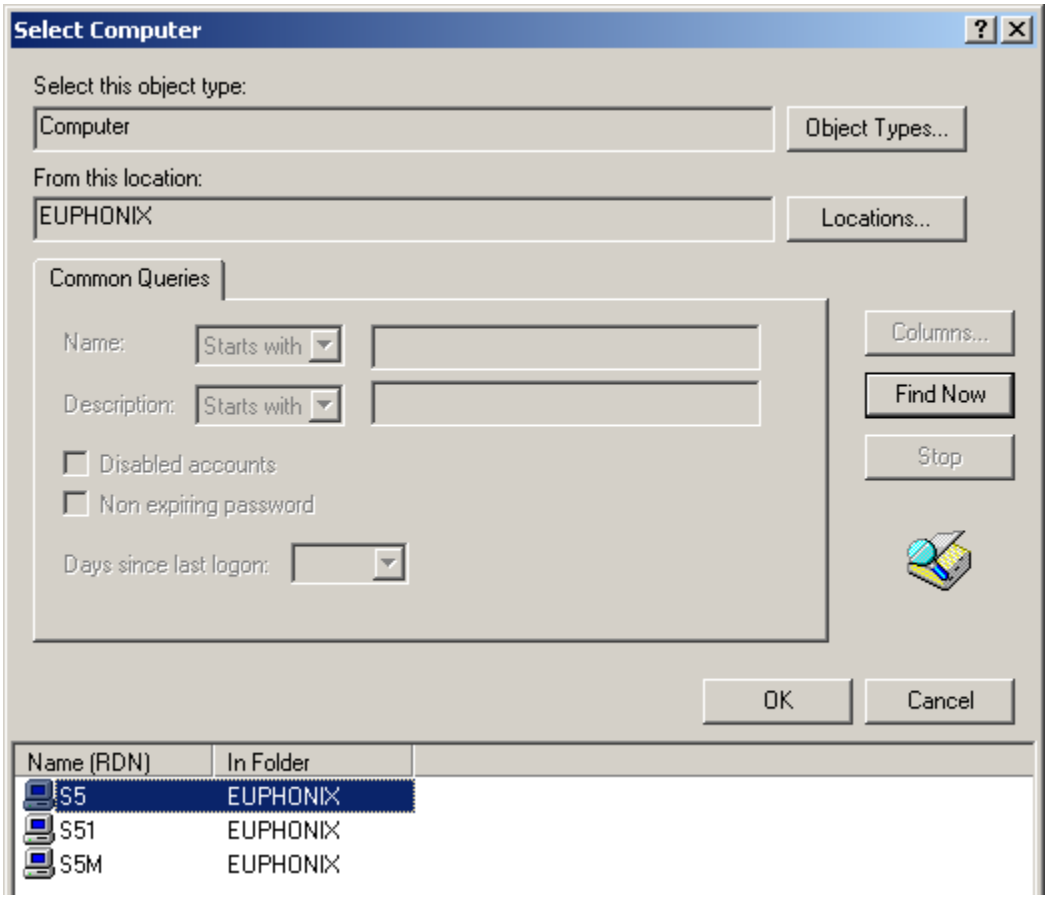


Figure 17 Select Computer-Advanced tab dialog

e. Select **S5M** and then click **OK** to close the Advanced dialog.

S5M should now appear in the Select Computer dialog.

f. Click **OK** to close that dialog.

19. Click **Apply** to retain the changes.

20. Click the Security tab.

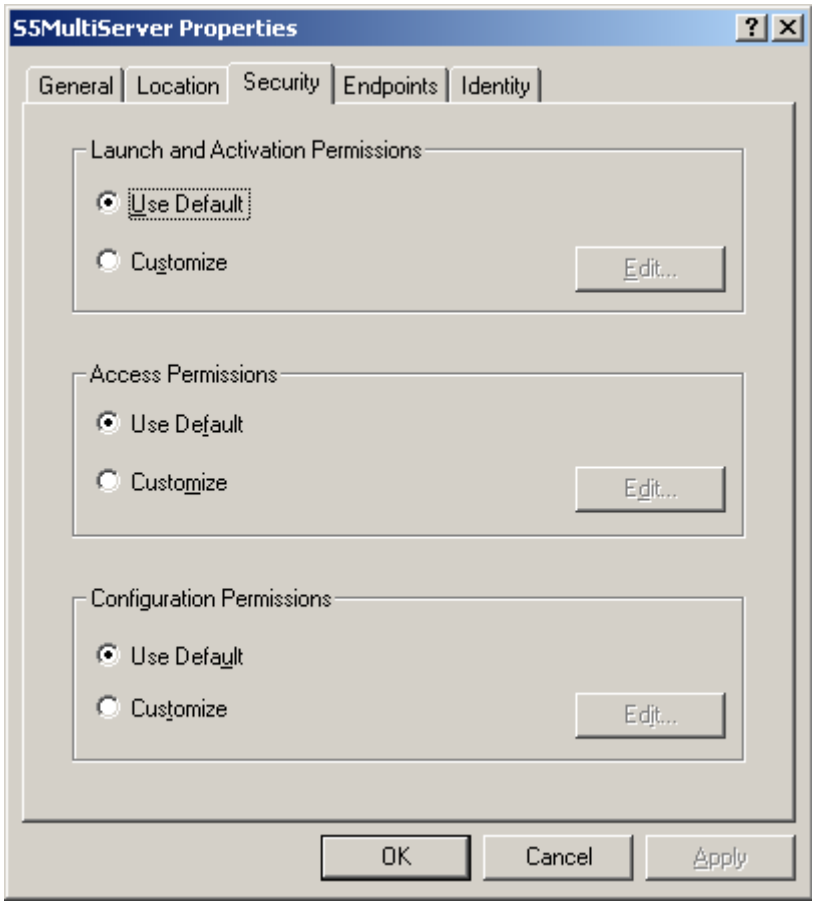


Figure 18 S5MultiServer Properties-Security tab

21. Make sure all three **Use Default** radio buttons are selected.
22. Click **Apply** then **OK** to close the S5MultiServer Properties dialog.

Setting up MOConfig

1. Open up a Windows Explorer window and locate the *C:\emix* directory.
2. Double-click **MOConfig.exe** to display the following dialog:

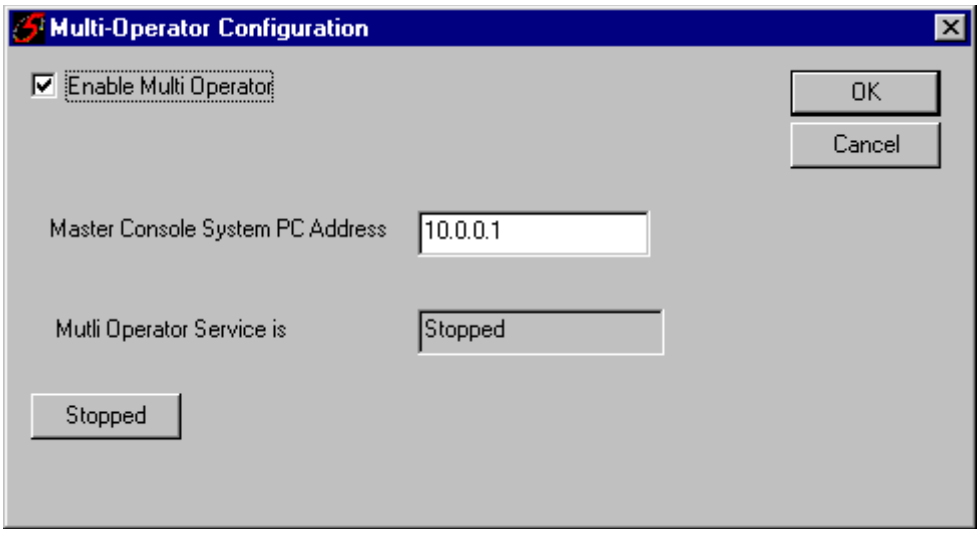


Figure 19 Multi-Operator Configuration Dialog

3. Click the **Enable Multi Operator** checkbox.
4. Enter **10.0.0.1** for the Master Console System PC Address.

Bus Cascade Inputs

There are MADI ports on the front of the last (highest numbered) DF64 that are dedicated to Bus Cascade Inputs from a slave console.

The assignment of these port is dependant on the selected mixer model. Regardless of the mixer model, the order in which the busses appear is: mix busses, group busses and then aux busses. For example, a mixer model with 32 mix busses, 8 group busses and 16 aux busses, would use only the first MADI port for all 56 busses in the order listed. A mixer model with 32 mix busses, 32 group busses and 16 aux busses would have mix busses 1-32 and group busses 1-24 on the first MADI port. Group busses 25-32 followed by aux busses 1-16 would appear on the second port.

Block Diagram

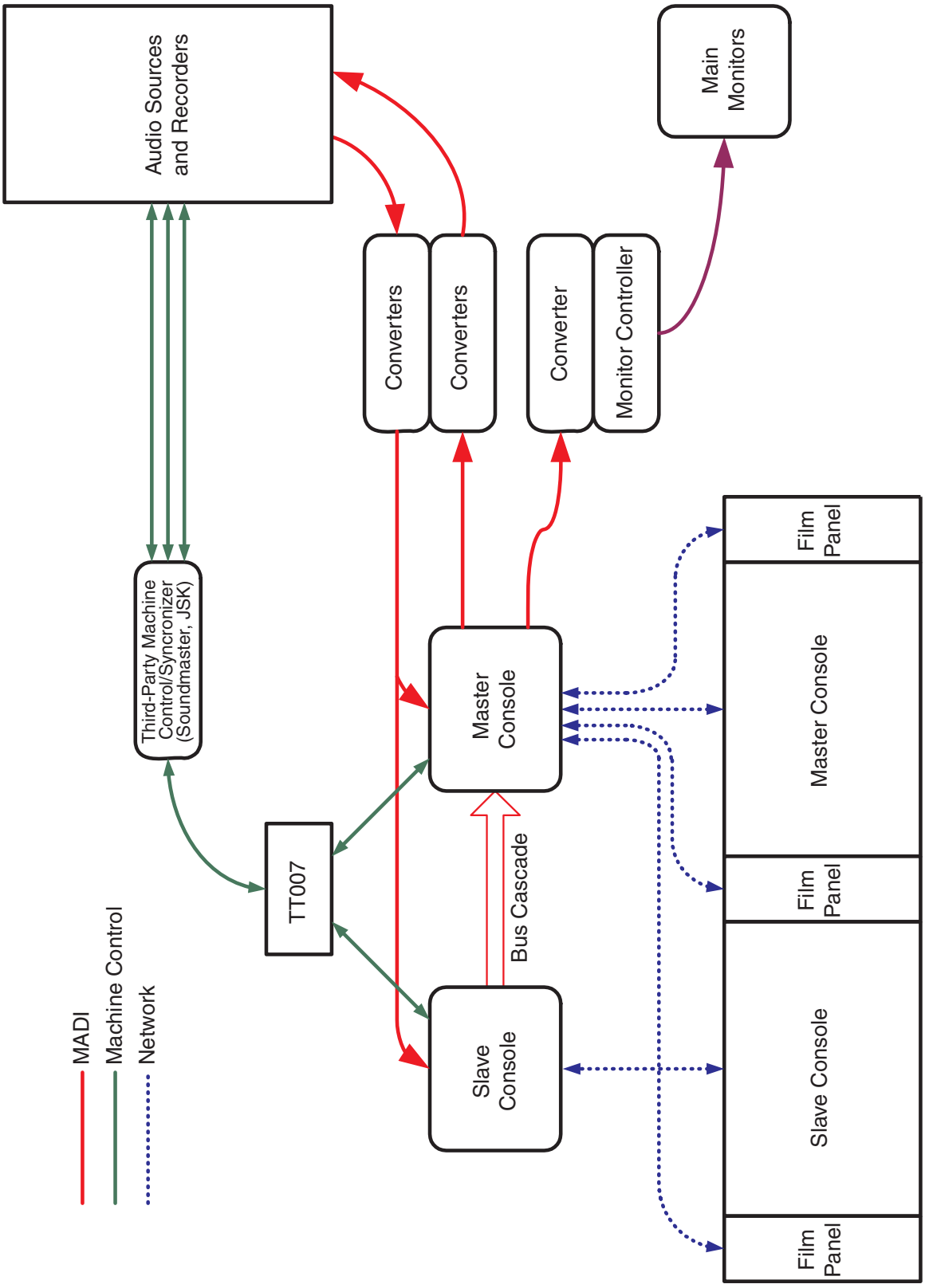


Figure 20 Dual Operator System Block Diagram